
Cairo Air Improvement Project (CAIP)

Report for the 1st Quarter of Year 2003

January 1st through March 31st 2003

Year 6

Contractor:

Contract Number:

Contract Period of Performance:

Chemonics International Inc.

263-C-00-97-00090-00

May 11, 1997 through December 31, 2003

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Part One: Contractor's Report

The Cairo Air Improvement Project (CAIP) was initiated on May 11, 1997, by the United States Agency for International Development (USAID) Egypt Mission and is under the direction of USAID/Egypt's Office of Environment. This report covers tasks and activities conducted during the first quarter of Year 2003, the 6th year of the project, a period extending from January 1st through March 31st, 2003.

A. Work Plan and Expected Results

The scope, anticipated results, and milestones are delineated in the original CAIP contract and subsequent amendments. With tasks identified in components' annual work plans, these constitute the expected outcomes for the project.

B. Organization of the Report

Section D presents, for each component, the expected tasks and activities, accomplishments, current status and performance issues for the previous, current and next quarters.

C. Administrative Data Section

Current Obligated Funding:	\$55,937,699
Total Contract Amount:	\$55,937,699
Expenditures for January 1 st through March 31 st , 2003:	\$1,035,929
Cumulative Expenditures to Date (03/31/03):	\$51,847,729
Remaining Unexpended Balance – Obligated Funds:	\$4,089,970
Remaining Unexpended Balance – Contract Total:	\$4,089,970

D. Component Narratives

D.1. Summary of VET Component Performance

VET Outstanding Milestones Status

Milestone(s)	Milestone Approval Status		
	Oct – Dec 2002	Jan – Mar 2003	Apr – Jun 2003
PM #16: Finalize role and responsibilities of EEAA	Cancelled per modification 8 to prime contract		
PM #17: New VET activities approved by stakeholders	Cancelled per modification 8 to prime contract		
PM #19: Inspection and Maintenance of Transit Buses (IMTB) program operational	On going	Completed	
PM #20: Inspection and Maintenance of Transit Buses (IMTB) data analysis report completed	On going	On going	To be completed
PM #21: Data analysis report from the GOE's VET program completed	Cancelled per modification 8 to prime contract		
PM #22: Shoubra Center Implementation Plan Complete			To be completed
PM #23: Shoubra Equipment Upgrades Installed and Training Completed			
PM #24: Shoubra Center Transferred to EEAA			

VET Tasks Status

Objectives and Tasks				Oct – Dec 2002	Jan - Mar 2003	Apr – Jun 2003
1	TEST & CERTIFY EMISSIONS OF VEHICLES					
	1.2	Task 1.2: Qualiubiya VET Program	<ul style="list-style-type: none"> Integrated provision for special testing studies with plan to convert model facility to a technical center 			
	1.3	Task 1.3: Giza VET Program (Cancelled per Steering Committee)	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	
	1.4	Task 1.4: Cairo VET Program (Cancelled per Steering Committee)	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A 	
	1.5	Task 1.5: Technical Center	<ul style="list-style-type: none"> Developed equipment specification & tendering document for the selected option Refined analysis of current status of center and agreed on modifications and enhancements Identified long-term staffing needs 	<ul style="list-style-type: none"> Evaluated proposals. Procurement on hold pending discussions with EEAA 	<ul style="list-style-type: none"> Procurement on hold pending discussions with EEAA 	
2	INCREASE FUEL EFFICIENCY THROUGH TUNE-UPS					

Objectives and Tasks			Oct – Dec 2002	Jan - Mar 2003	Apr – Jun 2003
	2.1	Task 2.1: VET Program Implementation	<ul style="list-style-type: none"> Ministerial Decree was issued on December 9, 2002, with implementation to begin in Giza and Qaliubiya Identified equipment needs for both governorates 	<ul style="list-style-type: none"> Drafted and issued RFP for equipment for the national VET program. Selected vendor, issued subcontract Began development of a communication strategy with the assistance of subcontractor SPAAC 	<ul style="list-style-type: none"> Receive all equipment and complete all training for Giza and Qaliubiya
	2.3	Task 2.3: Diesel Tune-up Program	<ul style="list-style-type: none"> Finalized procurement of equipment, placed orders and began receiving and installing additional equipment Diesel bus opacity measurement training held for 10 engineers and 12 technicians 	<ul style="list-style-type: none"> IMTB diesel engine diagnostic analyzer training held. 14 engineers and 17 technicians trained 	<ul style="list-style-type: none"> IMTB diesel engine diagnostic analyzer training to be completed.
3	ENSURE 80% COMPLIANCE RATE WITH GOE STANDARDS				
	3.1	Task 3.1 VET Policy and Institutional Support	<ul style="list-style-type: none"> Continued to facilitate dialogue on GOE program approval with goal of ministerial decree to establish program Ministerial Decree establishing national VET program issued on December 9, 2002 		

D.2 Summary of CNG Component Performance

CNG Outstanding Milestones Status

Milestone(s)	Milestone Approval Status		
	Oct - Dec 2002	Jan - Mar 2003	Apr – Jun 2003
PM #5: Plan for O&M Procedures	Completed		
PM #6: Institutional development plan for standards and regulations completed			To be completed
PM #16: CTA CNG garage leak detection safety equipment operational			To be completed
PM #17: GCBC CNG garage leak detection safety equipment operational	Completed		
PM #19: CMMS installed and operational at CTA and GCBC Garages			To be completed
PM #22: Egyptian Standards for CNG Cylinders/Tanks and Fuel Systems Issued			To be completed
PM #23: Complete and Begin Implementing a CNG Sustainability Plan			On going

CNG Tasks Status

Objectives and Tasks			CNG Tasks Status		
			Oct – Dec 2002	Jan – Mar 2003	Apr – Jun 2003
1	SUSTAINABLE O&M PROGRAM FOR CNG BUS FLEET				
	1.1	Supply 50 CNG buses	<ul style="list-style-type: none">Meetings held to fine-tune Freightliner-TBB/Triangle Inspection and Repair campaign for the CNG Fueling SystemFreightliner-TBB/Triangle substantially completed campaigns for HOS fan (GCBC 6 and 20 pending) and front leaf spring (GCBC 1 and 11 pending) at CTA and GCBCCummins/EIM engine campaign completed. Meetings held in order to enhance the Cummins/EIM On-going Support Plan, Related training commenced	<ul style="list-style-type: none">Freightliner/TBB's warrantied fueling system inspection and repair campaign: 4 "initial phase" buses completed and remaining 46 buses underway. Meetings to fine-tune the campaign requirements continuedFreightliner/TBB/Triangle's campaigns for HOS fan and front leaf spring at CTA and GCBC completedTraining to enhance the Cummins/EIM On-going Support Plan completed. Training on Cummins engine and maintenance forms held. 7 engineers and 14 technicians trainedGas cylinder cleaning to be done in conjunction with Freightliner/TBB campaign underwayTraining on tubing preparation, fitting and installation held for CarGas and GasTec	<ul style="list-style-type: none">Freightliner/TBB's warrantied fueling system inspection and repair campaign on the 46 remaining buses to continueGas cylinder cleaning done in conjunction with Freightliner/TBB campaign to continue
	1.2	Provide assistance in building CNG maintenance facilities at CTA and GCBC		<ul style="list-style-type: none">CMMS installation at GCBC continuedCMMS training for GCBC network administrators continued	<ul style="list-style-type: none">CMSS installation at GCBC in progressCMMS training for GCBC network administrators to be completed

Objectives and Tasks			Oct – Dec 2002	Jan – Mar 2003	Apr – Jun 2003
	1.3	Provide training and institutional support to CTA and GCBC	<ul style="list-style-type: none"> CNG quality assurance and enhanced fleet management practices in-country training completed 	<ul style="list-style-type: none"> Continued training, as needed, to enhance skills of technical and administrative personnel at CTA and GCBC garages Planning for Cummins/Allison engine training for engineers and technicians 	<ul style="list-style-type: none"> Continued training, as needed, to enhance skills of technical and administrative personnel at CTA and GCBC Continued planning for Cummins/Allison training for engineers and technicians
2	ESTABLISH CNG SAFETY STANDARDS				
	2.2	Develop CNG fueling system components standards		<ul style="list-style-type: none"> Developed and submitted to EOS Board 	<ul style="list-style-type: none"> EOS Board to review and approve
	2.3	Develop CNG cylinder standards – completed and endorsed		<ul style="list-style-type: none"> Development new CNG cylinder inspection and testing standards completed 	<ul style="list-style-type: none"> EOS Board to review and approve
	2.4	Develop CNG fueling station standards	<ul style="list-style-type: none"> Review by the EOS Board continued 	<ul style="list-style-type: none"> Review by the EOS board to continue 	<ul style="list-style-type: none"> EOS Board to review and approve
3	MASTER PLAN FOR LARGE-SCALE CONVERSION				
	3.0	Develop a master plan for large-scale conversion of bus fleets to CNG fuel			<ul style="list-style-type: none"> To be addressed in conjunction with the policy project (EEPP)
4	DEMONSTRATE 90% EMISSION REDUCTION				
	4.1	Establish new emissions measurement laboratory (ML)	<ul style="list-style-type: none"> Plan for testing diesel and CNG buses developed by EFEE. Testing commenced 	<ul style="list-style-type: none"> Testing of diesel and CNG buses continued Development verification measures for IMTB program 	<ul style="list-style-type: none"> Testing of diesel and CNG buses to continue Development of verification measures for IMTB program to continue
	4.1.11	Train ML personnel	<ul style="list-style-type: none"> Emission measurement and laboratory OST completed (September 26–October 10) Re-entry workshop held October 23 	<ul style="list-style-type: none"> Final report on training to be completed Continue to enhance training, as needed Develop strategic plan for sustainable operation 	<ul style="list-style-type: none"> Continue enhanced training, as needed Development of strategic plan for sustainable operation to continue
		Other Activities	<ul style="list-style-type: none"> Fielded long term CNG Transit Manager 	<ul style="list-style-type: none"> 2003 work planning session held January 29-30. 	<ul style="list-style-type: none"> 2003 work plan to be finalized

CNG Performance Problems and Corrective Action

Problem	Corrective Action
Cummins engine upgrade	Continue to gather information for the decision-making process

D.3. Summary of LPA Component Performance

LPA Outstanding Milestones Status

Milestone(s)	Milestone Approval Status		
	Oct – Dec 2002	Jan - Mar 2003	Apr – Jun 2003
PM #16: Awadallah Smelter Inaugurated			To be completed

LPA Tasks Status

Objectives and Tasks			Oct - Dec 2002	Jan - Mar 2003	Apr – Jun 2003
1	AWADALLAH SMELTER				
	1.6	Monitor construction of new large smelter plants	<ul style="list-style-type: none"> Conducted source testing and occupational exposure sampling at new smelter Worked with AQM component to analyze data from testing program to support deliverables and smelter inauguration event Continued work to achieve inauguration of smelter 	<ul style="list-style-type: none"> Inauguration of the new smelter postponed until electricity is connected 	
	1.7	Technology solution training for relevant Awadallah employees	<ul style="list-style-type: none"> Maintaining environmental equipment and industrial hygiene training held for 23 workers and technicians at Awadallah Smelter Environmental impact assessment documentation training held for two Awadallah engineers 		
2	SMALL AND MEDIUM SMELTERS				
	2.1	Technical assistance for specific needs of small & medium smelters	<ul style="list-style-type: none"> Completed 		
3	COMPREHENSIVE, COUNTRY-WIDE, LONG TERM SOLUTION				
	3.3	Develop a supply and demand tracking and projection system	<ul style="list-style-type: none"> Completed 		

LPA Performance Problems and Corrective Action

Problem	Corrective Action
The installation of electrical power has been delayed, which is causing delays in commissioning and delaying the smelter inauguration.	CAIP continues to stay work with the local government and the smelter owner to help facilitate the provision of electrical power.

D.4. Summary of AQM Component Performance

AQM Milestones Status

Milestone(s)	Milestone Approval Status		
	Oct – Dec 2002	Jan – Mar 2003	Apr – Jun 2003
PM # 15: Final Source Attribution Study Submitted	On going	On going	To be completed
PM # 16: Implement Dispersion Modeling for Point and Area Sources	On going	On going	To be completed
PM # 18: AQM Trend Report for Lead and PM Year 2001 Produced with CAIP Oversight	Completed		
PM # 19: Lead Emissions Trend Report for Year 2001 Produced with CAIP Oversight		On going	On going
PM# 20: Complete Transfer of AQM Network to EEAA			To be completed
PM# 21: Complete Transfer of LEI and SAS Equipment and Software to EEAA			To be completed

AQM Tasks Status

Objectives and Tasks		Oct – Dec 2002	Jan – Mar 2003	Apr – Jun 2003
1.1	Ambient PM & Pb Monitoring	<ul style="list-style-type: none"> Started procurement process for new monitoring equipment, spare parts and accessories for the revised AQM Network in the greater Cairo area Procured new shelters and other accessories for the network from the local market 	<ul style="list-style-type: none"> Received new equipment to upgrade and revitalize the existing network. 	<ul style="list-style-type: none"> Calibrate AirMetrics samplers. Work with EEAA to install at the 20 designated monitoring sites Install samplers at the 20 monitoring sites Prepare for new AQM Network inauguration Submit final report of transfer for new AQM network
1.2	Baseline Source Attribution Study (SAS)	<ul style="list-style-type: none"> Obtained chemical analysis results for SAS ambient and source samples from DRI in December Delivered SAS equipment to EEAA on December 30, after the arrival of the SAS chemical analysis results 	<ul style="list-style-type: none"> Completed the Chemical Mass Balance (CMB) modeling after the arrival of the chemical analysis results for inorganic and PAHs from DRI Prepared final SAS reports, including appendices and executive summary for the Minister, EEAA CEO, USAID and other officials Selected participants from EEAA to take part in final SAS training to be provided by DRI 	<ul style="list-style-type: none"> CAIP to test the part of the CMB prepared in Cairo Conduct training for EEAA team on SAS and CMB modeling Present SAS findings to USAID/EEAA and other officials
1.3	Lead Emission Inventory	<ul style="list-style-type: none"> Procured spare parts and accessories for the source testing equipment Started source testing at the new Awadullah Lead Smelter. After one measurement process had to be stopped due to failure of electricity Began measuring lead concentration in the workplace Delivered the Source Emission Testing Equipment to EEAA Procured safety and other equipment from the local market 		<ul style="list-style-type: none"> Complete and submit 2000/2001 LEI Trend Report (EEAA/CAIP team) Complete source testing at new lead smelter. Complete measurements of lead concentration in the work place
1.4	Second Training Cycle	<ul style="list-style-type: none"> Completed the final reports for Point Source and Area Source Case Studies of Dispersion Modeling 		<ul style="list-style-type: none"> Submit final reports for Point Source and Area Source Case Studies of Dispersion Modeling

1.6	Hand Over Plan for AQM Network accepted by EEAA		<ul style="list-style-type: none"> Prepared the final Report of Transfer for the AQM Network to EEAA 	<ul style="list-style-type: none"> Submit the final Report of Transfer for the AQM network to EEAA
1.7	Complete Transfer of SAS & LEI Equipment and Software to EEAA	<ul style="list-style-type: none"> Transfer of SAS equipment to EEAA after receiving the chemical analysis results from DRI Transfer of Lead Emissions Inventory and Source Testing Equipment completed on December 30 	<ul style="list-style-type: none"> Prepared the final Report for Transfer of SAS and LEI Equipment to EEAA 	<ul style="list-style-type: none"> Submit the final Report for Transfer of SAS and LEI Equipment to EEAA

AQM Performance Problems and Corrective Action

Problem	Corrective Action
Lack of electricity at Awadallah Smelter	CAIP continues to work with the local government and the smelter owner to help facilitate the provision of electrical power. CAIP is ready to conduct source test and measurements of lead in the work place as soon as electricity is available.

D.5. Summary of PACP Department Performance

PACP Outstanding Milestones Status

Milestone(s)	Milestone Approval Status		
	Oct -Dec 2002	Jan – Mar 2003	Apr – Jun 2003
PM # 14: Campaign conducted to publicize demonstration fleet	Cancelled per modification 8 to prime contract		
PM # 15: Mini-campaigns conducted for the Shoubra VET model center operations	On hold	On hold	On hold
PM # 17: Documentaries for CAIP initiatives completed and accepted by EEAA and USAID	On going	On going	Expect Completion
PM # 19: Publicize campaign covering the results of IMTB program with CTA and GCBC to the Egyptian private sector	On going	On going	
PM # 20: Air Quality Communication Strategy Completed			
PM # 21: PA Transfer Plan Completed			Expect Completion
PM # 22: PA Equipment/Material Transfer Completed			

PACP Tasks Status

Objectives and Tasks			Oct – Dec 2002	Jan – Mar 2003	Apr – Jun 2003
1	WRAP UP OF CAIP ACTIVITIES WHILE INCREASING PUBLIC AWARENESS ON AIR QUALITY ISSUES				
	1.1	Design campaign to publicize project results to policy makers, other stakeholders and general public	<ul style="list-style-type: none"> KAP is pending the full broadcasting of the TV campaign, given that it is expected to have a measurable impact on public perception Continued updating project website Submitted draft brochure to USAID for review 	<ul style="list-style-type: none"> No activity due to work on high priority national VET program launch 	<ul style="list-style-type: none"> In light of decreasing resources for communications, CAIP will discuss with USAID whether conducting another KAP is the most efficient use of resources
	1.2	Package/Disseminate Air Quality Monitoring data	<ul style="list-style-type: none"> Continued preparing AQM monograph for publishing AQM information dissemination plan integrated with task 1.1 above 	<ul style="list-style-type: none"> No activity on monograph due to work on high priority national VET program launch 	<ul style="list-style-type: none"> Publish AQM monograph
2	SUPPORT FULL IMPLEMENTATION OF THE VET / IMTB PROGRAM				
	2.1	Support Vehicle Emission Tune up & Maintenance in the Transit System	<ul style="list-style-type: none"> Work on IMTB monograph 	<ul style="list-style-type: none"> Continued work on IMTB monograph 	<ul style="list-style-type: none"> Publish IMTB monograph Information dissemination plan will be under EEPP and reported on in EEPP quarterly reports

Objectives and Tasks			Oct – Dec 2002	Jan – Mar 2003	Apr – Jun 2003
		Promote New National VET Program	<ul style="list-style-type: none"> New national VET program was established by decree on December 9, 2002. CAIP created a team and developed a communication strategy for review by stakeholders 	<ul style="list-style-type: none"> VET program communication strategy and implementation plan finalized Obtained agreement from MOE and MOI on approach Brochure, posters and fact sheets developed and circulated for review Launched effort to identify and educate maintenance workshops around Cairo Engaged firm to create and modify TV spots Began outreach for broadcast and print media coverage Introduced communications module for traffic department trainees 	<ul style="list-style-type: none"> Continue efforts to raise awareness of program, focusing on June 1 program start
3	PROMOTE USE OF CNG IN THE TRANSIT SYSTEM				
	3.1	General awareness activities to promote CNG benefits	<ul style="list-style-type: none"> No activity; activity is considered complete 		
	3.2	Promote the Vehicle Emission & Performance Testing Center	<ul style="list-style-type: none"> Shot footage for documentary on VEPTC 	<ul style="list-style-type: none"> No activity due to work on high priority national VET program launch 	<ul style="list-style-type: none"> Finalize VEPTC documentary
4	SUPPORT THE INTRODUCTION OF NEW TECHNOLOGY TO LEAD SMELTERS				
	4.1	Spread awareness of new technology	<ul style="list-style-type: none"> Continued work on LPA monograph 	<ul style="list-style-type: none"> Began planning for Awadallah smelter inauguration. Work put on hold when it became clear that inauguration would be delayed 	<ul style="list-style-type: none"> Print and disseminate LPA monograph Publicize the inauguration of the new Awadallah lead smelter
6	<ul style="list-style-type: none"> OTHER 				
	6.1	General support to the CAIP stakeholders	<ul style="list-style-type: none"> Continued assistance for design, implementation of MOE/EEAA events and programs Worked to phase down PA activity under existing CAIP scope, including creating an inventory of all equipment, publications and materials, for use in 2003 and eventual transfer to EEAA 		<ul style="list-style-type: none"> Meet with EEAA to determine best approach for meeting ongoing communications needs, and possible transfer of some materials to EEAA during second half of 2003

PA Performance Problems and Corrective Action

Problem	Corrective Action
Activities under the PA component, as originally defined for CAIP, have largely been completed as agreed by USAID and EEAA. CAIP will continue to support remaining work noted above, including the new VET program and expected communication strategy under EEPP.	

D.6 Summary of OM Performance

OM Outstanding Milestones Status

Milestone(s)	Milestone Approval Status		
	Oct - Dec 2002	Jan - Mar 2003	Apr – Jun 2003
PM #13: Agreement on affected agencies/organizations to general terms of a CAIP sustainability plan (Dec 1999)	Cancelled per modification 8 to prime contract		
PM #14e: Annual Inventory Report (Year 5)		Completed	
PM #19d: Quarterly report submitted for year 4	Completed		
PM #19e: Quarterly report submitted for year 5	On going	Completed	
PM #23: Final Project Completion Report Submitted			
PM #24: Inventory Transfer Plan Completed			
PM #25: Final Workshop for Project Completed			

OM Tasks Status

Objectives and Tasks	Oct – Dec 2002	Jan - Mar 2003	Apr – Jun 2003
Work Planning	<ul style="list-style-type: none"> Year 5 and Year 6 milestones finalized in Modification 8 	<ul style="list-style-type: none"> 2003 work plans developed by each component 	<ul style="list-style-type: none"> EEPP work plans for CNG, air quality strategy and lead to be developed.
Finalize direction of CAIP activities	<ul style="list-style-type: none"> Extension of CAIP formalized in modification 8 		<ul style="list-style-type: none"> Modification 9 to add EEPP policy work to CAIP
Overall training	<ul style="list-style-type: none"> English language training for CAIP counterparts continued at AUC Two CAIP-nominated participants from EEAA environmental quality sector attended economic evaluation and policy analysis training provided by SPAAC Visual Basic 2 training held for 7 trainees from CTA and EEAA Advanced data acquisition and multiplexing network training course held for 5 Misr Lab engineers Microsoft Certified System Engineers courses began. 8 trainees from GCBC CTA, Qaliubiya Governorate and EEAA participating 	<ul style="list-style-type: none"> English language training for CAIP counterparts continued at AUC Microsoft Certified System Engineers courses to be completed. 8 trainees from GCBC CTA, Qaliubiya Governorate and EEAA participating EEPP Air Quality Strategy and Lead Smelter Remediation OST to be held December 31 – January 26 	<ul style="list-style-type: none"> English language training for CAIP counterparts to continue at AUC Reevaluate timing of OST for Early Warning System staff in order to enhance skills in air quality forecasting, in light of current world events

Objectives and Tasks	Oct – Dec 2002	Jan - Mar 2003	Apr – Jun 2003
CAIP closeout/transition	<ul style="list-style-type: none"> Monthly meetings of sustainability groups continued 	<ul style="list-style-type: none"> Sustainability discussions continuing through active components Two project vehicles transferred to EEAA 	<ul style="list-style-type: none"> Two additional project vehicles transferred to EEAA.